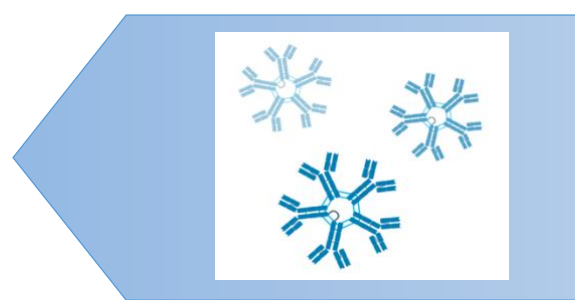


News fEEB

Ecology and Evolutionary Biology Monthly Newsletter

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Upcoming

Dec 9 [Alyson Brokaw's Doctoral Defense](#)
(11:00am)

Dec 11 [EEB Virtual Recruitment Q&A](#)
(6:00pm-7:00pm)

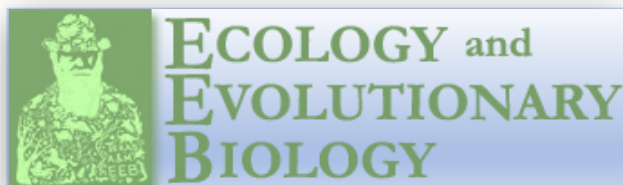
Announcements

EEB continues to grow with yet another record number of applications for the program this year!

Student Spotlight

Alyson Brokaw is a PhD candidate in the Smotherman Lab with an imminent dissertation defense scheduled for December 9th (see announcements for details). Alyson joined the Smotherman Lab at the dawn of the EEB program following completion of her M.S. in the Szewczak lab at Humboldt State University where she began her academic journey studying bat sensory ecology, olfaction, neurophysiology, and bat behavior. In the Smotherman lab, Alyson has focused on social and olfaction communication

modalities in several bat species as well as social interactions and sexual selection. During her time in the Smotherman lab, Alyson has had many academic achievements. In 2019, she was an Ernst Mayr Short-Term Fellow with the Smithsonian Tropical Research Institute where she conducted her thesis research in Panama, while having also conducted field research in Mexico and Belize. She has been a grant recipient from the American Society of Mammalogists and the American Museum of Natural History, and her research has taken her to Mexico and Thailand to present at conferences. Beyond her commitment to academic research, Alyson is passionate about science communication and outreach. This passion was recognized this year when she was selected to attend the flagship Communicating Science Conference where she wrote a piece featured in the September 2020 issue of the Natural History magazine. Find her on Twitter and Instagram @alyb_batgirl! While keeping busy with academia and research, you can also catch Alyson out on the Ultimate Frisbee field where she coached the Texas A&M Women's Team for 2.5 years!

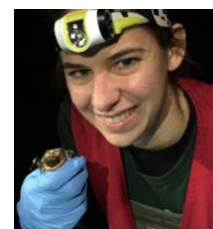


Monthly Discussion

There has been discussion of needing an “Extended Evolutionary Synthesis” by scientists in recent decades. It is claimed that core assumptions of the Modern Synthesis inadequately incorporate recent understandings in developmental biology (evo-devo) and ecology as well as in accommodating the -omics era. The Extended Evolutionary Synthesis seeks to expand core assumptions of evolutionary theory.

Faculty and students of the EEB community, what are your thoughts on an Extended Evolutionary Synthesis? Are we in need of further modernizing evolutionary theory? If so, are we ready? If not, what knowledge is current absent that would be required to justify and fulfill an Extended Evolutionary Synthesis?

Want to join the discussion? Respond to the corresponding email OR tweet out your response @TAMUEEB and include #TAMUEEB



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Laboratory Highlights



Dr. Michael Thomson

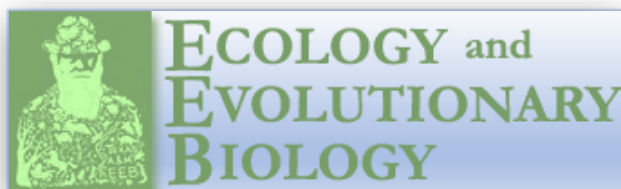
The Crop Genome Editing Lab ([CGEL](#)) is comprised of a team of leaders and innovators in CRISPR/Cas gene editing technologies for crop improvement. The lab was established by Texas A&M Agrilife Research in 2017 and is led by Drs. Michael Thomson, head of CGEL, and Endang Septiningsih, co-PI of the lab, in the Department of Crop and Soil Sciences. Drs. Nikolaos Tsakirpaloglou, Nithya Subramanian, and Oneida Ibarra, are researcher associates that develop gene editing projects and provide oversight for many graduate students in the lab. CGEL has many projects underway for healthier foods and improved crop resilience in rice, wheat, peanut, sorghum, potato, and cotton. I am working in collaboration with CGEL to investigate EEB-related questions regarding plant-insect interactions in cotton cropping systems using gene editing technologies. I am fortunate to work under the tutelage of such experts and leaders to apply recent and novel innovations in gene editing technologies to answer questions related to insect nutrition in my research system.



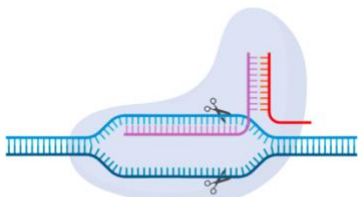
Dr. Endang Septiningsih



From left to right: Karina Morales, Tia Dunbar, Oneida Ibarra, Khushboo Rastogi, Nithya Subramanian, Sudip Biswas, Robert Miller, Sejuti Mondal, Hassan Gheisari, Nikos Tsakirpaloglou, and Sumeet Mankar. Members not shown include Aya Bridgeland, Leonard Herndon, Faridul Islam, and Stephon Warren.

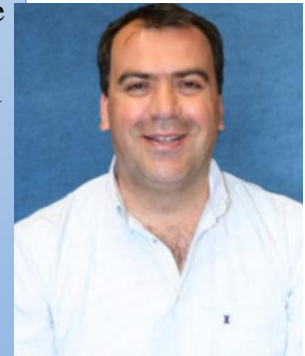


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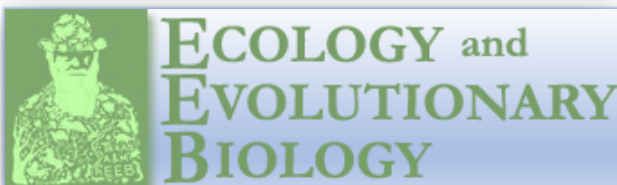
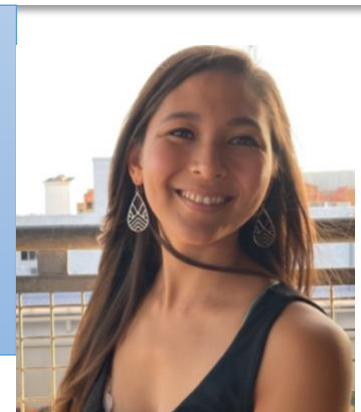
Laboratory Highlights: Featured Members

Nikolaos Tsakirpaloglou joined the Crop Genome Editing Lab in July 2019 to lead the efforts for the development of a high-throughput genome editing pipeline across different crop species. Nikos received both his PhD in Biology and M.Sc. in Integrated Pest Management at Newcastle University, UK, following completion of his B.Sc. in Agricultural Sciences at Aristotle University of Thessaloniki, Greece. Prior to joining CGEL, he spent approximately 8 years at the International Rice Research Institute (IRRI) in the Philippines working towards the development and release of biofortified rice varieties (primarily high iron and zinc rice). While there, he also participated, managed, and lead projects for gene validation and genome editing purposes in rice.



Aya Bridgeland is a M.S. student in Plant Breeding and works in the Crop Genome Editing Lab at Texas A&M University under Dr. Endang Septiningsih. She is an American Society of Plant Biologists Conviron Scholar. Before attending Texas A&M University, she received her B.S. in Crop Sciences from the University of Illinois at Urbana-Champaign. She is interested in novel transformation methods and agricultural applications for biotechnology. Her research is focused on developing a CRISPR/Cas9 genome editing protocol for cowpeas with the ultimate aim of improving the nutritional composition of the crop.

Tia Dunbar is a M.S. student in the Department of Plant Breeding working in the Crop Genome Editing Lab under the advisement of Dr. Thomson. Tia joined Dr. Thomson's lab in 2019 following completion of her B.Sc. in the Biological Sciences at the University of California, Davis. At Davis, Tia gained many research experiences, including working in postharvest pathology in the Mann lab. These experiences have culminated into her Master's thesis on optimizing *in planta* CRISPR/Cas9 gene editing in rice using nanotechnologies. In addition to her achievements in research, Tia is an officer of the SACNAS chapter at Texas A&M University as well as an officer of the Women for Science and Engineering. Outside of academia, Tia is no stranger to the volleyball courts and has an acute affinity for cheeses.



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